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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,151	12/11/2001	Gunnar Hedin	980.1122US01	6199

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EXAMINER

LEE, HWA S

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/015,151

Applicant(s)

HEDIN, GUNNAR

Examiner

Andrew H. Lee

Art Unit

2877

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-16 and 18-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Double Patenting

1. Claims 1-16 and 18-29 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of copending Application No. 10/014,278, and No. 10/014,277. Although the conflicting claims are not identical, they are not patentably distinct from each other because the devices claimed in the copending applications inherently practice the methods claimed.
2. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6, 18, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Chang-Hasnain et al (US 6,233,263).

Chang-Hasnain et al (Chang hereinafter) monitoring and control assembly for wavelength stabilized optical system comprising:

illuminating an optical element (20) with output from the laser (12) to produce an interference pattern, the optical element being a non-parallel etalon;

Art Unit: 2877

detecting at least three different portions (column 4, lines 61+ or column 7, lines 25+) of the interference pattern to generate at least three respective detection signals;
adjusting (30) the operating wavelength of the laser in response to the feedback signal.

With regards to claims 2-6, the use of an array of photodetectors would meet the limitations of claims 2-6.

With regards to claim 18, the choosing of one of a number of UTI standard operating wavelengths is well know as admitted by the applicant.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7- 16, 20-23, 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang as applied to claims 1-6 above, and further in view of Fencil (US 4,170,416), Ballard et al (4,515,478) and Hanse (4,566,794).

Chang does not expressly show the summing and fringe analysis of the detection signals.

Fencil shows an apparatus for analyzing coherent radiation using a stepped etalon wherein Fencil teaches the use of several detectors to sample different phases of the fringes. Ballard et al and Hanse both show the fringe analysis (sine/cosine analysis). At the time of the invention, one of ordinary skill in the art would have used the signal analysis taught by Ballard et al and Hanse in

Art Unit: 2877

order to determine the different characteristics of the light being measured including the determination of the intensity of the light since it is of common knowledge to one ordinary skill in the art that sampling equivalently across one fringe involving basic trigonometry of sine and cosine waves is an indicator of the intensity of the sampled beam in that if all the intensity measured by the detectors overall is very high, *indicating* the intensity of the source beam is high also. In particular, the measurement of the peaks (constructive interference) of the fringes would inherently *indicate* the intensity of the source beam although the true intensity may not be determined.

7. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang, Fencil, Ballard et al, and Hanse as applied to claim 20 above, and further in view of Russell (6,151,114).

The use of a non-parallel etalon having at least one curved surface is not shown. Russell shows the use of a non-parallel etalon having at least one curved surface. At the time of the invention, one of ordinary skill in the art would have used a non-parallel etalon having at least one curved surface in order to differentiate the effects of the arrival angle of the beam from the wavelength of the beam.

Response to Arguments

8. Applicant's arguments with respect to claims 1-16, and 18-29 have been considered but are moot in view of the new ground(s) of rejection.

Papers related to this application may be submitted to Technology Center (TC) 2800 by facsimile transmission. Papers should be faxed to TC 2800 via the PTO Fax Center located in CP4-4C23. The faxing of such papers must conform with the notice published in the Official

Art Unit: 2877

Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Center number is 703-872-9306 for regular communications and for After Final communications.

If the Applicant wishes to send a Fax dealing with either a Proposed Amendment or for discussion for a phone interview then the fax should:

- a) Contain either the statement "DRAFT" or "PROPOSED AMENDMENT" on the Fax Cover Sheet; and
- b) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Hwa Lee whose telephone number is (571) 272-2419. The examiner can normally be reached on M-Th. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571) 272-2415.



Andrew Lee
Patent Examiner
Art Unit 2877

April 18, 2004/ahl